

ACCESSION NUMBER: 94:514194 NLDB
TITLE: Biotechnology - Fibrin Glue "Platelet CD9 Binds the
Adhesive Protein Fibronectin."
SOURCE: Blood Weekly, (13 Mar 1995) .
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TX According . . . authors to the 36th Annual Meeting of the American Society of Hematology, held December 2-6, 1994, in Nashville, Tennessee, "Platelet p24/CD9 is a membrane protein found on the surface of platelets and endothelial cells and is a member of a newly . . . in cell specific interactions involving adhesion or in signal transduction pathways that influence either adhesion or cell maturation processes. Because p24/CD9 is an abundant protein on platelets, we investigated potential homology of CD9 to other adhesive molecules. Databases were searched at the National Center for Biotechnology Information (NCBI) and the European Molecular Biology Laboratory (EMBL) for functional domains and for new CD9 homologs. Using the alignment programs (t) BLAST and BLITZ, we found regions of CD9 homologous to fibronectin binding protein and the integrin VLA-4 alpha subunit precursor. Regions in both of these proteins are homologous to sequences found in first extracellular domain of CD9. More importantly, from this information a potential ligand for CD9, fibronectin, has been suggested. ELISA assays were then carried out to determine whether fibronectin functions as a ligand for CD9. Using purified CD9 and fibronectin, we were able to demonstrate that fibronectin does bind to CD9 and that synthesized peptides that correspond to specific regions of the CD9 extracellular loops inhibited fibronectin binding to CD9. Our data suggests that CD9 may in part function through its interaction with fibronectin and may represent a new family of regulatory adhesion molecules."

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FILE 'DISSABS, IMOBILITY, AGRICOLA, AQUASCI, BIOTECHNO, COMPENDEX,
COMPUAB, CONFSCI, ELCOM, HEALSAFE, IMSDRUGCONF, INSPEC, LIFESCI, OCEAN,
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L1 17602 S CD9
L2 627 S L1 (S) (FRAGMENT OR PEPTIDE)
L3 31 S L2 (S) (EC2 OR EXTRACELLULAR LOOP)
L4 13 DUP REM L3 (18 DUPLICATES REMOVED)

FILE 'DISSABS, IMOBILITY, AGRICOLA, AQUASCI, BIOTECHNO, COMPENDEX,
COMPUAB, CONFSCI, ELCOM, HEALSAFE, IMSDRUGCONF, INSPEC, LIFESCI, OCEAN,
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